

TEN NEW AFRICAN HAEMATOPOTA.

By F. W. EDWARDS.

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(PLATE II.)

A small number of *Haematopota* from the Congo were recently sent for determination to the British Museum by M. E. Roubaud of the Pasteur Institute. Among these were specimens of an interesting new species of the *H. pertinens* group, and as M. Roubaud was kind enough to say that the type of this species might be deposited in the British Museum, I undertook to describe it, including at the same time, at Dr. G. A. K. Marshall's request, descriptions of a few of the numerous unrecorded African species of this genus in the collections of the British Museum and the Imperial Bureau of Entomology. The following is a list of the ten new species described below, with the countries from which they were respectively obtained:—

* <i>H. pulchella</i> ,	sp. n.	..	..	Nyasaland.
* <i>H. fasciatapex</i>,	„	..	..	Nyasaland; N.E. Rhodesia.
† <i>H. pallidicornis</i>,	„	..	..	S. Nigeria.
* <i>H. crassicrus</i>,	„	..	..	British East Africa.
† <i>H. mordens</i>,	„	..	..	Gold Coast (Northern Territories).
* <i>H. nefanda</i>,	„	..	..	Uganda.
* <i>H. obsoleta</i>,	„	..	..	Nyasaland.
* <i>H. rabida</i>,	„	..	..	„
† <i>H. furians</i>,	„	..	..	Sierra Leone.
<i>H. perturbans</i>,	„	..	..	Congo.

The types of the species marked * have been presented to the British Museum by the Imperial Bureau of Entomology; those marked † by the collectors.

Descriptions of the wing-markings of *Haematopota* are difficult to write and still more difficult to read, but they have been rendered entirely unnecessary by the beautiful photographs prepared by Mr. A. Cant. The outline drawings of the heads have been made by Mr. A. J. E. Terzi with his usual accuracy and skill, and it is hoped that with the aid of these figures and photographs, the short descriptions given will be sufficient to enable the species to be recognised with certainty.

***Haematopota pulchella*, sp. nov.** (Pl. II, fig. 4).

♀. *Head* (fig. 1): Face and jowls whitish, with long white hair; a pair of dark brown spots adjoining each eye just below the antennae. Front rather dark brown, margins narrowly light grey, more broadly so towards the vertex. Median frontal spot absent; lateral spots rather large, perpendicularly oval, usually bordered with light brown. Frontal callus rather broad, wrinkled, extending from eye to eye, with its upper margin gently convex; in colour it is either entirely shining black or else

blackish above and clove-brown below. Spot below callus velvet black, almost divided into two from beneath by a grey streak. *Antennae* wholly black; first joint moderately shining, swollen, not quite three times as long as its greatest breadth. *Palpi* light grey, clothed with whitish hairs towards the base, shorter black ones on the apical two-thirds.

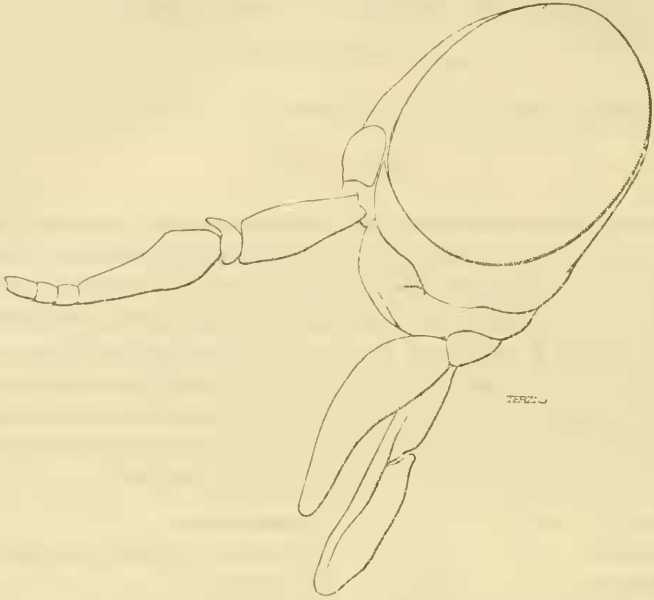


Fig. 1. *Haematopota pulchella*. Edw. sp. n.

Thorax dark, almost blackish brown above, with conspicuous pale markings, as follows: Margins of scutum as far as the wing-base greyish; a pair of rather narrow but sharply defined creamy lines extending from the front margin to the conspicuous post-sutural spots; usually a short very narrow median stripe from the front margin; a large creamy area just in front of the scutellum, almost as broad as the latter and produced forward into three points, also with a small lateral extension which is sometimes joined to a small pale spot just interior to the post-alar calli. Scutellum brownish cream-coloured, with large dark brown lateral spots. Mesonotum very sparsely clothed with short dark and yellowish hair; some black hair in front of wing base; a tuft of whitish hair on the post-alar calli. Pleurae greyish.

Abdomen blackish-brown, the first two or three segments usually more or less reddish brown, this colour sometimes extending over the greater part of the abdomen; hind margins of all the segments narrowly pale; tergites 4 to 6 or sometimes 3 to 6 with pairs of inconspicuous paler spots near the base. Whole dorsal surface of the abdomen clothed with short black hair, except on the lateral margins, where the hair is rather longer and white. Venter greyish.

Legs: Front legs black; coxae whitish on the basal half, which is clothed with long white hair; tibiae moderately thickened towards the tip, a broad white ring near the base. Middle legs black; tibiae with two conspicuous creamy rings; metatarsus pale at the base. Hind legs blackish; femora rather lighter at the base

and fringed beneath with whitish hair; tibiae with a broad whitish ring close to the base, and a much narrower and indistinct brownish ring nearer the tip; metatarsi pale on the basal two-thirds.

Wings smoky, with darker clouds over the cross-veins; on the hind margin are two conspicuous white spots in the second and fifth posterior cells. Squamae dark. Halteres entirely cream-coloured.

♂. Very similar to the female, but the hair on the first antennal joint, the pleurae, the hind femora and the under side of the abdomen is longer and denser; the tip of the abdomen is less darkened and the pale hind borders of the tergites are less noticeable.

Length (without antennae, average specimen), 12.5 mm.; wing-length, 11 mm.; width of head, 4.1 mm.; width of front at vertex, 1.2 mm.

NYASALAND: Mt. Mlanje, 30.x.-2.xii.1913, commonest at about 3,000 ft. (*S. A. Neave*).

A series of two males and about 200 females is in the possession of the Imperial Bureau of Entomology, of which the males and 17 females have been presented to the British Museum.

H. pulchella is apparently most nearly allied to *H. alluaudi*, Surc., and *H. distincta*, Ric., but may easily be distinguished by the obsolescence of the outer pale band on the hind tibiae and by the two conspicuous white spots on the hind margin of the wing. What is apparently a melanic form of *H. alluaudi* was also found commonly by Mr. Neave on Mt. Mlanje, but occurred chiefly at higher altitudes. *H. pulchella* also bears a considerable, though quite superficial, resemblance to *H. neavei*, Aust.

***Haematopota fasciatapex*, sp. nov.** (Pl. II, fig. 6).

♀. *Head* (fig. 2): Face and jowls light grey, with whitish hair; the former with some brownish speckling on the upper part towards the eyes. Front rather light

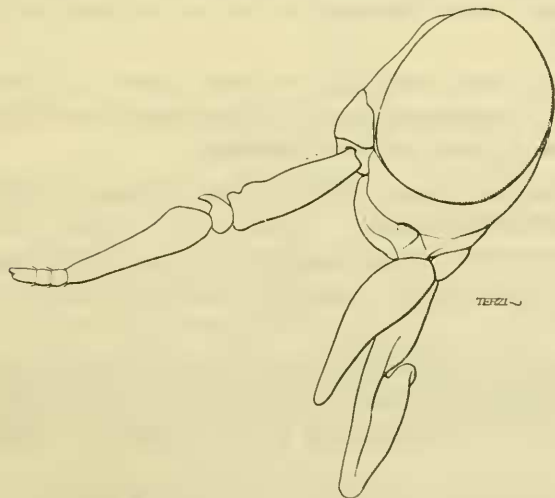


Fig. 2. *Haematopota fasciatapex*, Edw. sp. n.

greyish-brown, with short black hair; median spot small or absent; lateral spots large, round, touching the eyes, and also almost touching the upper margin of the

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frontal callus; borders rather paler. Frontal callus moderately broad, shining blackish-brown or dark brown, not much wrinkled, its upper margin rather strongly convex; it touches the eyes for some distance, but separates slightly in the upper part. Spot below callus rounded, velvet-black. *Antennae* dingy reddish-brown, extreme base of third joint grey, especially on the upper surface, terminal annuli black. First joint not shining, scarcely thickened, about four times as long as its greatest breadth. *Palpi* pale greyish, clothed with black and whitish hairs, the former most numerous towards the apex.

Thorax dark brownish, more greyish towards the front, the three pale stripes only extending a short distance from the front margin and not very distinct; post-sutural spots distinct. Scutum with short black hair and pale yellowish close-lying pubescence, the latter much denser in a transverse band just in front of the scutellum, accentuating to the naked eye the conspicuousness of the grey markings in this position. Scutellum dark brownish, clothed with black hair. Pleurae light grey, with white hair.

Abdomen rather dark brown, more reddish-tinged basally; second segment paler in the middle, third to sixth with pairs of somewhat elongate pale spots; lateral and posterior margins of segments light brownish and with some pale pubescence, the pubescence elsewhere on the dorsum being black. Venter dusted with grey, yellowish basally, pubescence pale, except on the last segment where it is longer and black.

Legs: Front coxae light greyish, remainder of legs black, tibiae distinctly swollen, with a white ring at the base. Middle legs brownish, tarsi darker, except for the pale base of the metatarsus; tibiae with two distinct and equally broad whitish rings. Hind legs blackish, femora lighter towards the base, tibiae slightly thickened, with one rather broad white ring at the base, no trace of a second ring; fringe of black hair on the outer side slightly longer than usual, as long as the width of the tibia; basal half of metatarsi pale.

Wings greyish brown with white markings; no darker clouds; no conspicuous pale patch at the anal angle. Squamae coloured like the ground colour of the wings. Halteres light yellowish, base of knob somewhat darkened.

Length, 10 mm.; wing-length, 9.5 mm.; width of head, 3.2 mm.; width of front at vertex, 1.0 mm. (measurements of type).

NYASALAND: Ngara, i.1915 (*Dr. J. B. Davey*), 1 ♀ (type). N.E. RHODESIA: Luangwa Valley, Petauke, 2,400 ft., 22.i.1905, 4 ♀, and 8-9.i.1908, 2 ♀ (*S. A. Neave*).

The Rhodesian specimens are on the average rather larger than the type, and the first antennal joint is a little shorter, but there can be no doubt that they belong to the same species. They are very much rubbed and so do not show the band of pale pubescence on the thorax.

*H. fasciatape*x is nearly related to *H. divisape*x, Aust., and *H. insatiabilis*, Aust., but differs in the longer and more slender first antennal joint, in the absence of any trace of a second pale ring on the hind tibiae, and in the absence of a white patch at the anal angle of the wing; also in the more conspicuous pubescence of the thorax.

Haematopota pallidicornis, sp. nov. (Pl. II, fig. 10).

♀. *Head* (fig. 3): Face and jowls mostly greyish, with rather short yellowish hair; an irregular dark patch beneath the antennae, a clearly defined dark brown patch on each side of this touching the eyes, a dark transverse streak across the lower margin of the face from the eyes to the bases of the palpi; clypeal pits larger than usual and shining dark brown, instead of dull greyish like the ground-colour of the face. Front rather dark brownish, with short black hair; median spot minute; lateral spots rounded, almost touching the eyes, but some distance above the upper margin of the callus. Frontal callus shining black, smooth, very prominent, moderately deep; its sides rounded and not quite reaching the eyes even at the widest part; upper margin convex with a slight upward projection in the middle. Spot below callus rather small, velvet-black. *Antennae* almost uniformly light reddish-brown, terminal annuli more brownish; first joint dull, nearly cylindrical, about three times as long as broad. *Palpi* brownish, clothed with light and dark hair intermixed.

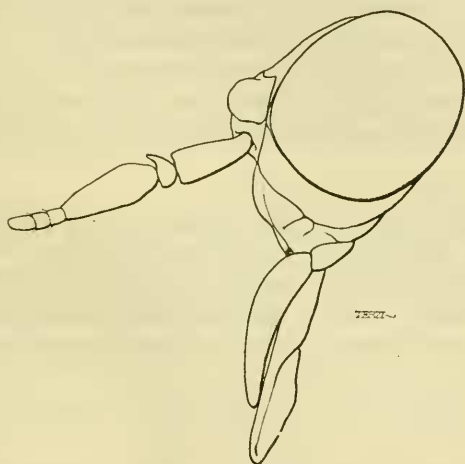


Fig. 3. *Haematopota pallidicornis*, Edw., sp. n.

Thorax dark greyish brown; pale markings very much reduced, the median stripe of the scutum being entirely absent; lateral stripes short, narrow, not distinctly reaching the post-sutural spots, which are inconspicuous; a pair of somewhat rounded grey spots in front of the scutellum; scutellum entirely light grey. Scutum and scutellum rather densely clothed with pale yellowish pubescence, except for the middle part of the former, which has short black hair instead; the yellowish pubescence appears to the naked eye to form a pair of slightly divergent pale stripes from the front margin to the post-sutural spots; it is also denser about the suture and before the scutellum. Pleurae somewhat lighter, with whitish hair.

Abdomen blackish brown above, the posterior margins of the segments conspicuously whitish; segments 4-6 with pairs of small elongate grey spots towards their bases; pubescence black, except at the posterior corners of the segments, where it is whitish. Venter blackish, with conspicuous whitish pubescence towards the apices of the segments.

Legs: Front legs blackish, coxae at the base grey, clothed with long pale hair; tibiae very little thickened, white on rather more than their basal half. Middle and hind legs blackish, tibiae each with two conspicuous whitish rings, of which the basal one is very broad, occupying nearly half the tibia, and separated from the apical one by quite a narrow dark ring; metatarsi pale towards the base, more extensively so on the middle legs; middle femora not so dark as the hind pair.

Wings dark, with well-defined cream-coloured markings; no darker clouds; stigma extensively pale at the base; an almost horizontal pale streak in the anal cell. Squamae light coloured. Halteres yellowish.

Length, 9 mm.; *wing-length*, 7 mm.; *width of head*, 2.8 mm.; *width of front at vertex*, 0.7 mm.

SOUTHERN NIGERIA: Cross River, i. i. 1910 (*C. W. Jemmett*), 2 ♀ (incl. type); Ikotobo, xii. 1913 (*Dr. J. W. Scott Macfie*), 1 ♀ (specimen figured).

Although this species has a certain amount of superficial resemblance to *H. crudelis*, Aust., and *H. cruenta*, Aust., it appears to have no near relative, unless the form of the frontal callus indicates some connection with *H. bullatifrons*, Aust. The most salient features of *H. pallidicornis* are the light-coloured antennae, the remarkable frontal callus, the very extensively pale tibiae, and the course of the pale streak in the anal cell. I retain the name which I found had been suggested for it by Mr. Austen.

***Haematopota crassicus*, sp. nov.** (Pl. II, fig. 1).

♀. *Head* (fig. 4): Face and jowls grey, with whitish hair; a small roundish black spot beneath each antenna; a slight dark cloud at the eye margin. Front dark grey, lighter in the middle and sides of the vertex and round the black spots. Median frontal spot very small or absent; lateral spots irregularly triangular, remote from the eye-margins. The front is clothed with short black hair towards the vertex,

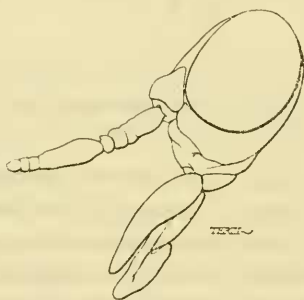


Fig. 4. *Haematopota crassicus*. Edw., sp. n.

and with longer whitish hair below. Frontal callus shining black, moderately wrinkled, touching the eyes below, but separated above; its upper margin produced upwards laterally and in the middle, the median projection variable in height and breadth, sometimes reaching as far as the upper margin of the frontal spots. Spot below frontal callus velvety black. *Antennae* dull blackish grey, terminal annuli of third joint black. First joint nearly cylindrical, but with its outer face somewhat concave; about three times as long as broad; second joint roundish. *Palpi* rather dark grey, clothed with mixed light and dark hairs.

Thorax dark blackish grey, dorsum clothed with close-lying whitish pubescence. Scutum with rather inconspicuous grey markings arranged on the usual plan; median pale stripe running the whole length of the scutum; lateral stripes usually not reaching the post-sutural spots; pale area before scutellum consisting of four contiguous more or less triangular spots, the inner and larger pair with their apices pointing forwards in a line with the post-sutural spots. Scutellum sometimes paler in the middle, especially towards the tip. Pleurae very little lighter than the dorsum, with rather short whitish hair.

Abdomen rather short and stout, dark blackish-grey, sometimes with a brownish tinge; all the tergites with the posterior margins conspicuously light greyish, and all except the first with paired rounded brownish-grey spots. Pubescence short, mainly black, but with some pale hairs on the lateral and posterior margins of the segments. Venter coloured like the dorsum, but without rounded paired spots.

Legs: Front legs black; coxae and under side of femora more grey; tibiae with a moderately broad and rather ill-defined pale ring near the base, very much swollen a little beyond the middle, but somewhat contracted again apically. Middle and hind legs with the femora dark grey, blackish towards the tips, tibia blackish with two rather ill-defined brown rings; tarsi blackish, the basal half of the metatarsi obscurely pale. Hind tibiae rather stouter and with the pale rings less conspicuous than in the middle pair.

Wings rather dark grey, no darker clouds over cross-veins; stigma entirely dark; markings well-defined, white; the spot near the tip is broad and conspicuous. Squamae brownish, the margin darker. Halteres with pale yellowish stem, knob blackish brown with a lighter brown tip.

Length, 7 mm.; wing-length, 6.8 mm.; width of head, 2.7 mm.; width of front at vertex, .9 mm.

BRITISH EAST AFRICA: Kuja Valley, S. Kavirondo, 4,000 ft., 30.iv.-1.v.1911 (*S. A. Neave*).

A series of 78 ♀ taken by Mr. Neave, of which 12 (including type) have been presented to the British Museum by the Imperial Bureau of Entomology.

H. crassicus belongs to the same group as *H. vexans*, Aust., and *H. maculosifacies*, Aust. It is rather closely allied to the latter, but differs in having only two distinct black spots on the face, considerably shorter antennae, broader front, more spotted and rather broader abdomen, less distinctly ringed tibiae, and darker halteres.

Haematopota mordens, sp. nov. (Pl. II, fig. 8).

♀. *Head* (fig. 5): Face and jowls greyish, without definite markings, hair whitish. Front brownish, side margins and outlines of lateral black spots pale grey, the spots round, separated from the eye-margins. Frontal callus shining blackish, not much wrinkled, rather narrow, almost but not quite touching the eyes; its lower margin concave, its upper margin more or less straight, slightly raised in the middle. Spot below callus velvet-black. *Antennae* dark brownish: first joint dull, greyish tinged, somewhat swollen, only about twice as long as its greatest breadth. *Palpi* greyish-brown, clothed with black hair.

Thorax dark greyish-brown; markings of the usual type but indistinct; median stripe perceptible along whole length of scutum; lateral stripes reaching the inconspicuous post-sutural spots; scutellum dark; sparse yellowish pubescence on scutum.

Abdomen blackish-brown, with a slightly reddish tinge towards the base, hind margins of segments grey, with pale pubescence. Venter rather lighter in colour.

Legs: Front legs dark brown; tibiae considerably swollen, with a rather narrow and inconspicuous pale ring at the base. Middle legs: femora brown, darker at the tip; tibiae whitish, except on the apical fourth, which is dark brown; there is no trace of a dark area dividing the pale part of the tibia into two rings; metatarsus whitish with blackish tip; second to fourth tarsal joints pale at the base. Hind legs similar to the middle pair, but the tibiae have only an indistinct whitish ring at the base and faint traces of another narrower one beyond the middle. Pubescence on the mid and hind femora and tibiae mainly pale.

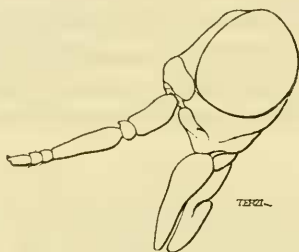


Fig. 5. *Haematopota mordens*, Edw., sp. n.

Wings dark greyish, with white markings; a conspicuous somewhat crescent-shaped white mark close to the tip. Squamae pale. Stem of halteres yellowish, knob darker.

Length, 6 mm.; wing-length, 5.5 mm.; width of head, 1.9 mm.; width of front at vertex (in type specimen), 0.75 mm.

NORTHERN TERRITORIES, GOLD COAST: Dimbipe, 19.vii.1910, 1 ♀ (type); Fadama, road to Dogankade, 6.vi.1910, 1 ♀; Salaga, biting boy near constabulary lines, 23.vi.1910, 1 ♀; Naquair, yam farms, 1-2.viii.1910, 2 ♀. All collected and presented by Dr. F. J. A. Beringer.

The Fadama and Salaga specimens differ from the type in having the front distinctly broader (.45 instead of .39 of the width of the head). The Naquair specimens also have a slightly broader front than the type, and in these the middle tibiae have the usual two pale rings, being darkened at the base and just beyond the middle; the rings however are not conspicuous and the pubescence of the tibia, as in the type, is mainly pale; in addition the Naquair specimens have the pale markings along the hind border of the wing rather less developed.

H. mordens appears to be most nearly allied to *H. vexans*, Aust., from which it can be easily distinguished by the shorter first antennal joint, less swollen front tibiae, paler middle tibiae, and different wing-markings, especially towards the apex of the wing.

Haematopota nefanda, sp. nov. (Pl. II, fig. 5).

♀. *Head* (fig. 6): Jowls and lower part of face at sides rather dark grey, with pale hair, centre and upper part light brownish; no dark spots or clouds. Front rather light brown, with short black hair towards the vertex; median spot usually absent; lateral spots large, roundish, touching the eyes. Frontal callus rather broad, nearly smooth, shining blackish-brown, extending from eye to eye, its upper margin convex and rising to a point in the middle. Spot below callus velvet black. *Antennae* reddish brown, third joint blackish brown, except towards the base. First joint rather shining, considerably swollen towards the tip, nearly three times as long as its greatest breadth. *Palpi* brown, clothed with black hair.

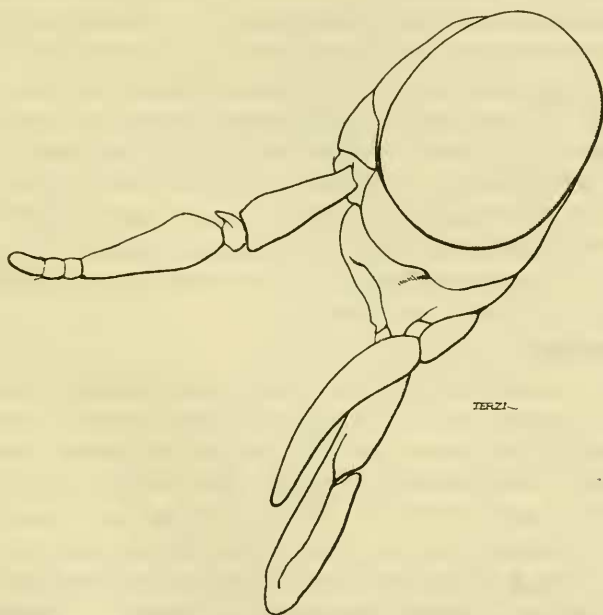


Fig. 6. *Haematopota nefanda*, Edw., sp. n.

Thorax brown, markings lighter brown; median stripe fairly distinct and running the whole length of the scutum; lateral stripes reaching the post-sutural spots, which are not very conspicuous; margins of scutum also pale; a pair of nearly semi-circular greyish spots just in front of the scutellum. Scutellum rather paler than the scutum. Mesonotum rather thickly clothed with dark hair and yellowish pubescence. Pleurae brownish grey with whitish hair.

Abdomen rusty-brown, the last three or four segments usually darker, slightly shining. Margins of tergites very narrowly and indistinctly lighter. Pubescence black, except at extreme lateral margins. Venter dark brownish grey.

Legs: Front legs black; coxae brown, clothed with long white hair on the basal half; tibiae slightly thickened, with one, not very broad, cream-coloured ring near the base. Middle legs rather dark brown; all the tarsal joints black at the tips; tibiae with two rather obscure paler rings. Hind legs dark brown; femora with

some pale hairs beneath; tibiae with a moderately broad light brown ring near the base, scarcely a trace of a second ring; basal half of metatarsus and bases of remaining tarsal joints lighter brown.

Wings dark brown with light brown markings; stigma dark, except at the extreme base; no darker clouds over cross-veins. Squamae dark with dark border. Halteres with pale stem and dark brown knob.

Length, 12 mm.; wing-length, 12 mm.; width of head, 4 mm.; width of front at vertex, 1.3 mm.

UGANDA: Mabira Forest, Chagwe, 3,500–3,800 ft., 16–25.vii.1911 (*S. A. Neave*), 4 ♀ (including type); Mabira, 20.vii.1911 (*C. C. Gowdey*), 2 ♀; Bugoma Forest, Ukyoro, 29.v.1905 (*Dr. C. Christy*), 1 ♀ presented by the Liverpool School of Tropical Medicine; Bulemwezi, 18.vii.1915 (*E. Hutchins*), 1 ♀. All but the Bugoma specimen presented at different times by the Imperial Bureau of Entomology.

According to a manuscript note placed with the Mabira specimens by Mr. E. E. Austen, this species is "closely allied to *H. inornata*, Austen, and essentially agreeing with it in the shape of the frontal callus and of 1st joint of antennae: distinguished by front being broader above, by third joint of antennae being larger and darker, by differences in the wing-markings—light markings more sharply defined, those in discal cell wider part, no darker areas at base and apex of discal cell or on fork of 3rd longitudinal vein—by presence of only one distinct pale band on the hind tibiae, and by greater length of 1st joint of antennae."

Haematopota obsoleta, sp. nov. (Pl. II, fig. 3).

♀. *Head* (fig. 7): Jowls and lower part of face rather dark grey, with whitish hair; upper part of face, on each side of the antennae, light brownish; between this and the grey part a slight dark brown cloud; a pair of dark brown spots immediately below the antennae. Front blackish, more grey at the margins; spots outlined with brown; short black hair towards the vertex. Median spot absent; lateral spot rounded, almost in contact with the eyes. Frontal callus broad, shining blackish-brown, nearly smooth, extending from eye to eye, its upper margin very convex. Spot below callus blackish, indented from below in the middle. *Antennae* dull reddish brown; the third joint dark brown, except towards the base; upper surface of first joint also somewhat darkened; first joint not much swollen, rather more than three times as long as broad. *Palpi* dark grey, clothed with rather short black hair; tip more brownish. *Thorax* dark brown, with pale markings arranged as usual, but quite inconspicuous (the thorax is somewhat discoloured). Dorsum rather sparsely covered with mixed short black hair and close-lying yellowish pubescence. Pleurae coloured like the dorsum, but with a greyish dusting, and clothed with whitish hair.

Abdomen dark, almost blackish brown above, dark grey beneath; posterior margins of tergites narrowly but distinctly light brownish-grey; second tergite with an indistinct grey median stripe which does not quite reach the front margin. Pubescence mainly black, but a considerable number of whitish hairs are present towards the sides and along the posterior margins of the tergites.

Legs: Front legs blackish brown, the tibiae with a rather broad white ring at the base; coxae with long white hair, pale ring on tibiae with shorter white hair, otherwise the pubescence is entirely black. Middle legs dark brown, tibiae with two not

very well defined pale rings, metatarsus pale except towards the tip; pubescence almost entirely black, even over the pale tibial rings. Hind legs dark brown; tibiae with a rather broad pale ring at the base, and another much narrower and much less distinct one towards the tip; metatarsus pale on the basal two-thirds; pubescence mainly black, but whitish hairs are numerous along the upper and lower margins of the femora and on the basal pale ring of the tibiae.

Wings dark brown, the pale spots very small and few in number, the apical pale streak being absent; stigma entirely dark brown; no darker clouds over the cross-veins. Squamae dark, with darker border. Halteres with pale stem and dark brown knob.

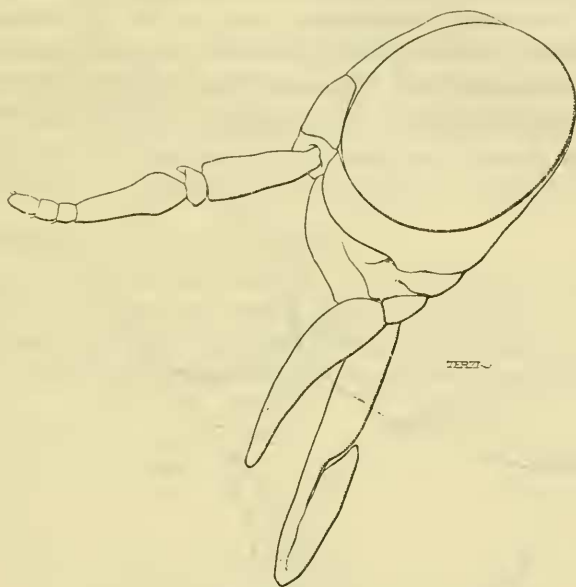


Fig. 7. *Haematopota obsoleta*, Edw., sp. n.

Length, 11.5 mm.; wing-length, 10.5 mm.; width of head, 4.3 mm.; width of front at vertex, 1.2 mm.

NYASALAND: Ruo Valley, 2,000 ft., 2.iv.1913 (*S. A. Neave*), 1 ♀.

In the reduction of the wing markings, and especially in the absence of the apical sinuous mark, this species is very distinct from almost all the others so far described from Africa. In structural characters it appears to be allied to *H. inornata*, Aust., and to *H. nefanda*, sp. n., but is much darker in colour, though it is just possible it may be only a melanic form of the latter. In spite of a prolonged search Mr. Neave was only able to obtain the single specimen.

Haematopota rabida, sp. nov. (Pl. II, fig. 7).

♀. *Head* (fig. 8): Face and jowls greyish, with whitish hair; a brown patch extending from beneath the antennae to the eye-margins. Front greyish brown, scarcely lighter at the margins; an indistinct median grey streak towards the vertex. Median frontal spot absent; lateral spots roundish, barely touching the eyes. Frontal callus moderately broad, wrinkled, shining black, extending from eye to eye, its upper

margin with a median projection on each side of which it is somewhat concave. Spot below callus velvet black. *Antennae*: First joint considerably swollen, about three times as long as its greatest breadth; outer half (from base to apex) blackish, inner half rather light brown. Second joint similarly coloured. Enlarged portion of third joint dark brown on its outer face, especially towards the base and apex, inner face entirely reddish brown; terminal annuli black. *Palpi* light brownish, with black hair, except at the extreme base.

Thorax rather dark greyish brown with inconspicuous markings consisting of three greyish lines from the front margin, of which the lateral pair are broadest in front, narrowed behind, and just reach the usual postsutural spots; a median line extending to the scutellum, but usually interrupted; and a pair of small light spots in front of the scutellum. Scutellum usually more or less reddish at the tip. Whole mesonotum rather densely clothed with close-lying yellowish pubescence, and also with sparser, more erect dark hairs. Pleurae greyish, clothed with white hair.

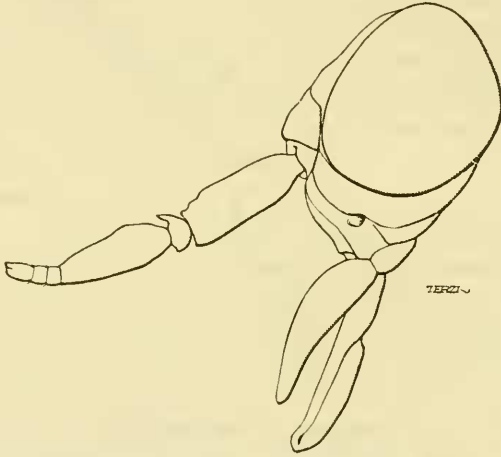


Fig. 8. *Haematopota rabida*, Edw., sp. n.

Abdomen reddish brown, the last few segments dark brown and with pairs of inconspicuous lighter spots. Hind margins of all the tergites narrowly, but quite conspicuously, light brown. Pubescence short, black, except on the lateral margins of the segments, where it is whitish. Venter greyish, darker apically.

Legs: Front coxae light brownish, tip dark; basal half with long white hair, apical half with shorter black hair. Femora rather darker brown. Tibiae moderately thickened apically, black, with a broad white ring which occupies almost the entire basal half. Tarsi black. Middle femora light brownish; tibiae darker, with two distinct equally broad pale brown rings; tarsi blackish, the basal two-thirds of the metatarsus pale. Hind femora light brownish; tibiae somewhat swollen, darker brown, with a broad whitish ring at the base and very indistinct traces of another much narrower ring towards the apex. Tarsi blackish brown; basal three-fourths of metatarsus whitish; bases of remaining joints indistinctly pale.

Wings evenly darkened; no darker clouds over the cross-veins; stigma inconspicuous. *Squamae* with a pale margin. *Halteres* either entirely yellowish or with the base of the knob slightly darkened.

♂ (if correctly associated with ♀). *Antennae* more slender; first joint somewhat shorter and not very much paler on the inner side than on the outer. Hair everywhere rather longer. *Front* and *hind femora* blackish brown. All the *tibiae* blackish at the base, the hind pair with much longer and denser hair and with the second pale ring more distinct. *Apical pale mark* on wing broader, and *hind margin* of wing with more conspicuous pale markings.

Length, 10 mm.; *wing-length*, 8 mm.; *width of head*, 3.5 mm.; *width of front* at vertex, 0.8 mm.

NYASALAND: Mpanda Mt., N. Nyasa, 20.xi.09 (*Dr. J. B. Davey*), 1 ♂ 8 ♀; forest on plateau near Mweynia, 18.xi.1909 (*Dr. J. B. Davey*), 1 ♀.

In coloration *H. rabida* is not at all unlike *H. torquens*, Aust., and *H. malefica*, Aust., but it differs very obviously from both in the characters of the antennae and the frontal callus. The coloration of the first antennal joint is most unusual.

***Haematopota furians*, sp. nov.** (Pl. II, fig. 9).

♀. *Head* (fig. 9): *Jowls* rather dark grey; *clypeus* light brown, also upper part of face at sides; a dark brown patch on each side of the antennae. *Front* light brown more or less mottled with slightly darker brown, with short black hair; *median spot* absent; *lateral spots* rather small, round, not quite touching the eyes and without.

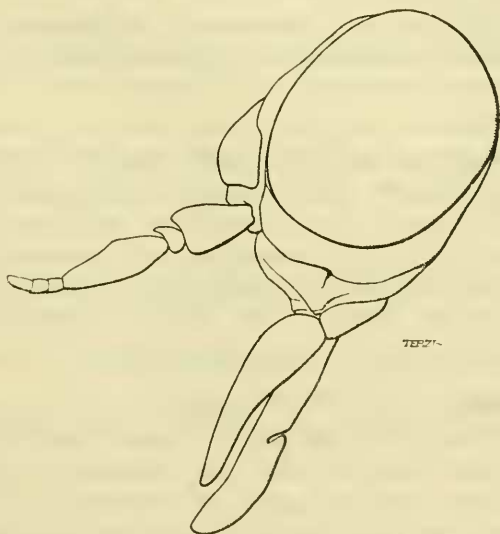


Fig. 9. *Haematopota furians*, Edw., sp. n.

pale borders. *Frontal callus* broad, nearly smooth, shining dark brown, not touching the eyes, its upper margin produced to a point in the middle. *Spot* below callus blackish brown. *Antennae* reddish brown, tip of last annulus of third joint black; first joint dull, very short, considerably swollen, less than twice as long as its greatest breadth. *Palpi* brownish, clothed with black hair.

Thorax rather dark brown with pale markings of the usual type which, though distinct, are not very conspicuous. Median stripe very narrow, usually extending the whole length of the scutum and over the scutellum; lateral stripes reaching the post-sutural spots. Scutellum with the tip sometimes grey, sometimes yellowish brown. Whole mesonotum clothed with mixed short black hair and yellowish close-lying pubescence. Pleurae dark brownish, clothed for the most part with dark hair.

Abdomen reddish brown, darker on the last few segments; all except the first two tergites have pairs of roundish light brown spots; there is also a narrow median light brown stripe running from the base of the second to the apex of the sixth segment, slightly broadened at the apex of the second; the hind margins of all the tergites are also distinctly light brown. Pubescence mostly blackish: pale on the venter and along the posterior, though not the lateral, borders of the tergites.

Legs brown; tarsi, except for the base of the metatarsi, somewhat darker. Front tibiae with one rather narrow and indistinct light brown ring near the base; middle and hind tibiae each with two rather indistinct light brown rings. Neither the front nor hind tibiae noticeably thickened.

Wings rather dark brown, markings light brown; stigma darker brown, except at the base. No darker clouds over the cross-veins. Squamae light brown. Halteres with whitish stem and brown knob.

Length, 11 mm.; wing-length, 9.8 mm.; width of head, 3.5 mm.; width of front at vertex, 1.0 mm.

SIERRA LEONE: Bo, iv-v.1910 (*Dr. H. E. Arbuckle*). 4 ♀ (including type); Batkanu Town, vii.1909 (*Dr. J. O. Murphy*), 1 ♀; Makump, 19.ix.1912, 2 ♀; Sandyallu, 3.viii.1912, 1 ♀; Senahu, 13.x.1912, 1 ♀ (*Dr. J. J. Simpson*); also one ♀ without exact data, presented by the London School of Tropical Medicine (coll. by *Dr. J. Pearson*).

H. furians is apparently most nearly allied to *H. sanguinaria*, Aust., from Rhodesia, and *H. edax*, Aust., from Uganda. Both these species differ in the shape of the frontal callus, which touches the eyes, in the shape of the third antennal joint, etc. Its nearest known relative in West Africa appears to be *H. torquens*, Aust., which differs in its smaller size; rather longer and less swollen first antennal joint; frontal callus touching eyes; pale-haired pleurae; less distinctly spotted abdomen; more conspicuous rings on tibiae; dark squamae and lighter knob of halteres.

***Haematopota perturbans*, sp. nov. (Pl. II, fig. 2).**

♀. *Head* (fig. 10): Face and jowls grey; a clearly-outlined blackish patch on each side of the antennae, nearly but not quite touching the eye-margins. *Front* light brown, with a pair of darker patches at the vertex; median spot absent; lateral spots rather large, round, not quite in contact with the eye-margins, without pale borders. Frontal callus rather narrow, shining black, slightly wrinkled, extending from eye to eye; its upper margin somewhat convex, with a narrow median projection, its lower margin concave above each antenna. Spot below callus blackish, rather narrow. *Antennae* reddish brown; the third joint blackish, except towards the base; first joint shining, considerably swollen, barely twice as long as its greatest breadth. *Palpi* brownish, clothed with black hair.

Thorax: Scutum dark brownish, with five distinct grey stripes running its whole length, the median stripe narrower than the others, the next pair more brownish behind the post-sutural spots; pubescence short, sparse, pale. Scutellum grey in the middle, sides dark brown. Pleurae greyish, nearly bare, a brown spot just above the sternopleural suture.

Abdomen rather dark brown, with a reddish tinge towards the base; posterior and lateral margins of tergites pale; pairs of indistinct pale spots on tergites 3-6; traces of a median pale line, most distinct on tergites 4 and 5. Pubescence mainly dark, some pale hairs along margins of tergites and on venter.

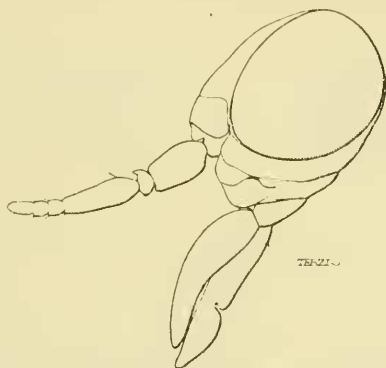


Fig. 10. *Haematopota perturbans*, Edw., sp. n.

Legs almost uniformly rather dark brown, tibiae without rings; front tibiae distinctly thickened. Pubescence black, except for some pale hairs on the under side of the hind femora.

Wings dark brownish, with well-defined very light brown markings; apical mark double. Squamae pale. Halteres with yellowish stem; knob brown, the tip lighter.

Length, 10 mm.; wing-length, 8.3 mm.; width of head, 3.1 mm.; width of front at vertex, 1.1 mm.

CONGO: Zambi (*Van Saceghem*), 1 ♀ (type; presented to the British Museum by the Institut Pasteur, Paris); Upper Lubingo, 14. xii. 1915, 2 ♀ (in coll. of Institut Pasteur).

H. perturbans is a very distinct species of the *H. pertinens* group. It differs from *H. pertinens*, Aust., in the more shining first antennal joint, black frontal callus, more distinctly striped thorax, partly reddish brown abdomen, rather darker legs, and in the wing-markings.